to physical reality, and—b) to reduce the uncontrolled cost and weight. (Flexible (rubber) Requirements.)

Ultra-High Performance

The F–22 does not provide a Great Leap Forward in performance relative to the F–15C or MiG–29. At 65,000 lbs, with 18,500–18,750 lbs of fuel, with two nominal 35,000 lb thrust engines—it has the thrust to weight ratio of the F–15C, the fuel fraction of the F–15C, and a wing loading that is only slightly inferior to that of the F–15C, so it will accelerate, climb, and maneuver much like the F–15C for reasons of basic physics.

There are two differences from the F–15—thrust vectoring and supersonic speeds in dry thrust. Thrust vectoring allows the F–22 to maneuver controllably at sub-stall speeds, which other aircraft cannot. This, in the helicopter speed domain, is in seeming contradiction to an aircraft designed for supersonic engagement with slashing attacks using its beyond visual range missiles.

The flight test program to validate maneuverability is utterly inadequate. Using a single number—the maximum steady-state G at 30,000 ft at 0.9 Mach—on an aircraft that operates from 40 knots to beyond Mach 2, from sea level to above 60,000 ft is a throwback to the Dark Ages of aircraft evaluation. Proper presentations are global, all-altitude all-speed plots at the two major power settings. They must be compared to friendly and enemy aircraft. Comparison reveals progress, the whole truth, and even allows the formulation of battle tactics.

Superior Avionics

The expectations for the avionics are to provide great battle awareness and effective weapons management. The F–22 is to autonomously identify (ID) the enemy from friend, from neutral, regardless of the country that produced the aircraft.

But, testing will not be fully completed before going into production! The pressure is on to meet production schedules and to do incomplete testing to save time and money. Incomplete testing is fatal and extremely wasteful. B–1 avionics, similarly treated, still do not function in the aircraft after two decades, despite large transfusions of funds.

Such refined identification capability has never been achieved though frequently promised. Given failure and dependence on visual identification, the F–22 will be at the level of the F–15 and F–16. The requirement for visual ID made the AIM–7D/E, the Talos, the complex long-range Phoenix missile and the Aegis missile cruiser relatively worthless. The avionics are to be treated as ''guilty'' until tested and proven to be innocent.

The software is more extensive and complex than that of the Aegis missile cruiser. Dependence on the integrated, complex system belies the dream of a low maintenance requirement.

Most likely result—The F–22 will be declared combat ready much before it is.

Relevance of Air Superiority

The relevance of air superiority in the modern world is vastly overstated. The USAF has faced no air superiority force since the Korean War. Nor have our ground troops faced an enemy air-to-surface threat.

US air superiority fighters are aimed at enemy fighters—the irrelevant half (of the problem. Our foreseeable enemies achieve air superiority with competent, relatively affordable, highly mobile Russian vehicles carrying surface-to-air missiles (IR radar, and optically guided), and two 30mm cannon (the Tangkuska). These are armed with SA–6, SA–8 and SA–10 missiles. The F–22 only counters non-existent enemy fighters. Hence air-to-surface F–16s, A–10s, and F–15s become the de facto air superiority aircraft. Attempts to equip the F–22 to suppress enemy defenses are easily defeated by enemy tactics used in Vietnam and Serbia.

The USAF is already over-equipped to handle any imaginable air superiority problem. Today, Air Combat Command is capable of handling any coalition of air superiority threats. Air Combat Command has the most important factor—competent pilots, the second most important factor—large numbers (1,600–2,400 fighters), and the least important advantage—the best aircraft. In Germany during World War II US numbers, not quality, reigned supreme.[5] The USAF has always had and has always depended upon superior numbers to win. Numbers guarantee victory. Numbers develop intensity and allow multiple attacks.

The US has no realistic future air superiority problem facing it. A sane US will not war with India, China, or Russia. Nor will we war with France, England, Japan, and Germany. None of these nations will attack the US. Other countries are not threats. Nor will we war with our friends to whom we sold US aircraft.[6] The US must minimize its enemies, not create them artificially to sustain the arms industry. Even Canada has been listed as a possible threat! Yet, the US continues to seek foreign sales before our modern aircraft see service in the USAF and US Navy. (Examples—the US Navy's F–14, F–18E, and the F–22.)

The conjured need to cope with our weapons places our country in a self-perpetuating arms race with itself.

CONCLUSION

Money expended on the program will weaken Air Combat Command and the USAF in two ways—

By getting involved with an aircraft that has no function, and no relevance to modern wars.

By denying themselves funds they really need—for training and for new aircraft to support a US Army, completely shipped of supporting airpower.

Approximately 90 percent of the program funding can still be saved, and reprogrammed to relevant Air Force programs.

ARTICLE BY JAMES L. HECHT

HON. MARK UDALL

OF COLORADO

IN THE HOUSE OF REPRESENTATIVES

Friday, June 9, 2000

Mr. UDALL of Colorado. Mr. Speaker, as we go forward with the budget process, I'd like to bring the attention of my colleagues to an article published in the Baltimore Sun. The author is a senior fellow at the Center for Public Policy and Contemporary Issues at the University of Denver. Although I don't necessarily agree with all the points he makes, I think the article is valuable for purposes of informed debate.

[The Sun: Tuesday, March 21, 2000]

SPECIAL INTEREST DEFENSE

(By James L. Hecht)

For a while, it looked as if Congress might do the right thing: kill an unneeded weapons program, saving $60 billion and increasing security. But in the end, Congress gave a higher priority to the interests of Lockheed Martin, providing $1 billion in this year's budget to buy up to six F–22 fighters—and keeping alive the possibility of buying more than 300 more at a cost of at least $187 million each.

The F–22 is an example of how the military budget is driven more by the desire of members of Congress to get re-elected than by security. The public interest is no match for lobbyists for the military-industrial complex who in 1996 contributed an average of $18,065 to every member of Congress, almost three times the level of tobacco-industry influence peddling.

Why is the F–22 an unneeded weapon? The American F–15 and F–16 fighters are the best in the world and, if more fighters are needed, these can be built for less than one-quarter the cost of an F–22. Moreover, the F–22 may be outdated soon by the Joint Strike Fighter, an even better plane on which the Pentagon is spending billions for development.

We spend more than $30 billion a year to maintain more than 10,000 nuclear warheads. A 1,000-warhead force with the destructive force of 40,000 Hiroshima explosions would be more than enough—and save about $17 billion a year.

How political pork supersedes military needs is demonstrated by the appropriation in last year's budget of $435 million for seven C–130 cargo transport planes. The Pentagon requested only one. They got seven because manufacture of these planes provided jobs in Newt Gingrich's district.

Huge expenditures for unneeded weapons is one reason that U.S. military spending is more than twice as much as all potential adversaries combined, including Russia, China, Iraq, Iran and North Korea. While polls indicate that 72 percent of Americans believe it better to have too much defense than too little, 83 percent think that spending should be no greater than that of all potential adversaries combined.

America's unreasonable military spending also results from the policy that the United States be able to simultaneously fight and win two major regional wars without the help of allies. This two-war doctrine is rooted in the idea that the United States should be able to exercise unilaterally its ''global responsibilities.''

But having this capability and then using it to act alone or with little military support from allies—as we did in Kosovo and continue to do in the skies over Iraq—decreases our security. We make bitter enemies of people that are no threat to us militarily, but can be a serious threat if in anger and frustration they resort to terrorism.

Our security also is decreased because our huge military spending consumes money that otherwise could be spent on education. With the economic success of nations becoming increasingly more dependent on a well-educated work force, shortchanging educational needs is a threat to the economic security of Americans in the 21st century.

Security is the most important function of government. But we should not—in the name of security—needlessly spend tens of billions of dollars a year for the benefit of politically connected interests.

ISSUES IN CYPRUS AND KOSOVO

HON. JOHN J. DUNCAN, JR.

OF TENNESSEE

IN THE HOUSE OF REPRESENTATIVES

Friday, June 9, 2000

Mr. DUNCAN. Mr. Speaker, Harry Moskos is the highly-respected editor of the Knoxville